

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-21 are currently pending in this application. Claims 1 and 5 are independent. The remaining claims depend, directly or indirectly, from claims 1 and 5.

Rejections under 35 U.S.C. § 112

The Examiner objects to the claims in general as being narrative and indefinite. The claims have been amended by this reply to conform to current US practice and to clarify the invention as recited. In addition, the Examiner objects to claims 14 and 17 specifically and requests clarity of the phrase "the angle zone of another wiper blade forms one field." Claims 14 and 17 have been amended by this reply to comply with the Examiner's request.

No new matter is added by way of these amendments. Support for these amendments may be found, for example, in paragraphs [0008], [0013], the original Figures, and the original claims of the present application.

Accordingly, withdrawal of these objections is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-7, 10, and 12-21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 4,665,488 ("Graham"). To the extent that this rejection may still apply to the amended claims, this rejection is respectfully traversed.

For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. The Applicant respectfully asserts that Graham fails to disclose an absolute sensor and a relative sensor as recited in the amended independent claims.

The amended independent claims now clearly recite two different sensors for measuring two different angular values for determining the angular position of each wiper blade of the wiper system. More specifically, the amended independent claims recite that a wiping angle of the wiper blades is *divided* into a plurality of angle zones (*see* Publication of present application, paragraphs [0008] and [0013]). An absolute sensor determines which one of the plurality of angle zones the wiper blades are located in, and a relative sensor then determines the angle at which the wiper blade is positioned *within the determined angle zone*. Measuring the angular position in this manner allows for more granularity, as two sensors determine two different angle values which are then used to compute the final angular position of the wiper blade. Thus, to be clear, there are a total of *four* sensors in the present invention – a pair of absolute sensors, one for each wiper arm, and a pair of relative sensors, one for each wiper arm.

Turning to the rejection of the claims, Graham fails to disclose *dividing a wiping angle* of the wiper blades into a *plurality of angle zones*. In fact, the only zone disclosed by Graham is the “zone of potential blade interference,” which relates to the area in which the wiper blades may collide (*see* Graham, col. 2, ll. 4-6 and col. 4, ll. 23-24). The zone of potential blade interference is a single zone defined for one wiper blade that is used solely to determine a corresponding non-interference zone of the other wiper blade (*see* Graham, col. 9, ll. 41-44). However, Graham does not take the total wiping angle of each wiper blade and divide that angle into a plurality of zones.

Further, it follows logically from the above that Graham fails to disclose both an absolute sensor and a relative sensor that determine different values based on the angle zones. Graham discloses two positional sensors, one for each wiper arm (*see* Graham, Figure 1, reference numbers 24 and 25). Graham discloses that the positional sensors are used to generate a signal representing the angular position of the wiper blade (*see* Graham, col. 9, ll. 33-35). However, each wiper arm is associated with only one positional sensor, and the single positional sensor of each wiper arm does not compute two distinct values, one being the angle zone within which the wiper blade is location, and the second being the angle within the angle zone. Said another way, because Graham does not divide a total wiping angle of a wiper blade into a plurality of zones, it is not necessary for Graham to include a sensor that determines which one of the plurality of angle zones within which the wiper arm is located at a given point in time.

In view of the above, it is clear that Graham fails to disclose each and every limitation of amended independent claims 1 and 5. Further, dependent claims 2-4, 6-7, 10, and 12-21 are patentable for at least the same reasons.

Further, with respect to dependent claims 2 and 6, Applicant asserts that Graham fails to disclose resetting the measuring angle determined by the relative sensor to zero each time a wiper blade crosses between boundaries of each of the angle zones. From the above, because Graham fails to disclose a relative sensor that uses the start of each angle zone as a reference point to measure an angle within the angle zone that the wiper blade is located in, it does not make sense for Graham to disclose resetting the reference angle to zero each time an angle zone boundary is crossed by the wiper blade. In fact, the cited portion of Graham (*see* Office Action mailed August 16, 2007, page 3) is completely silent with respect to resetting of any reference point used by one of the positional sensors.

Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 8, 9, and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Graham in view of US Patent No. 5,929,588 ("Shiah"). To the extent that this rejection may still apply to the amended claims, this rejection is respectfully traversed.

As described above, Graham fails to teach or suggest the limitations of the amended independent claims. Further, Shiah fails to supply that which Graham lacks, as evidenced by the fact that the Examiner relies on Shiah solely for the purpose of teaching that the absolute sensor is a magnetic field type sensor (*see* Office Action mailed August 16, 2007, page 4).

Further, Applicant asserts that dependent claims 8 and 9 recite more than just magnetic field type sensors, and that the Examiner has not properly addressed the additional limitations of these dependent claims. By way of illustration, dependent claim 8 recites that the absolute sensor comprises a *magnet wheel* arranged on the pivot axle of each wiper arm (*see* Specification, Figure 2, reference numbers 20, 36, and 40). The Examiner has failed to provide prior art that discloses a sensor made up of a magnet wheel with the properties recited in dependent claims 8 and 9. Thus, Applicant respectfully requests the Examiner to consider all of the limitations recited in dependent claims 8 and 9.

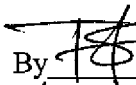
In view of the above, amended independent claims 1 and 5 are patentable over Graham and Shiah, whether considered separately or in combination. Dependent claims 8, 9, and 11 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 17102/014001).

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Respectfully submitted,

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